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EXAMINER	
KOCH, GEORGE R	
ART UNIT	PAPER NUMBER
1734	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/982,035	MASAKI ET AL.	
	Examiner	Art Unit	
	George R. Koch III	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,6-10,12,13,19-25,35-41,44 and 47-58* is/are pending in the application.

4a) Of the above claim(s) *19-24 and 35-40* is/are withdrawn from consideration.

5)☒ Claim(s) *41* is/are allowed.

6)☒ Claim(s) *1, 6-10, 12, 13, 25, 44, 47-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 6, 8-9, 12, 25, 44, 47-50, 52-53, 55 and 59-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Krueger references (Krueger - US Patent 6,649,220; Krueger - WO00/21684) in view of Rabourn (US 4,876,760).

Both references have identical disclosures but different effective dates.

As to claim 1, Krueger discloses an apparatus for processing a workpiece, specifically a portion of an automobile body, which is capable of processing the portion including a concave portion which extends along a curved line in a substantially longitudinal direction of the automobile body and has opposing side walls and a bottom, (Note: an automobile windshield meets the automobile body limitation) comprising a processing device (item 10, attached thereto) and comprises a supporting block and slidably supported structure (item 181, see Figure 10 and 11, plus Figure 1, the close up, which shows items 32 and 35) movably supporting the processing device, wherein the supporting device includes a slidably supported structure (for example, item 181 - and see especially column 103, which disclose that the structures are slidably mounted, as well as Figure 11, which shows that the structures are smooth) and is movable during the processing operation relative to and along the portion of the automobile body being processed. These blocks cooperate to enable full movement for block 181, to

which the processing head is connected. The slidably supported structure is in exclusively slidable engagement with the supporting device and is free to move in a widthwise direction of the automobile body relative to the automobile body, wherein such movement of the slidably supported structure is solely and directly in response to movement of the processing device along the concave portion, and is capable of moving relative to a concave portion. Krueger also discloses a longitudinal drive device (item 177) for moving the slidably supported structure relative to the automobile body in a longitudinal direction of the automobile body. Krueger further discloses that the processing device mounted to the slidably supported structure and includes a processing head having a tip (item 49) capable of engaging either of the side walls and the bottom of the concave portion of the automobile, the processing head thus being capable of moving in the substantially longitudinal direction relative to and along the concave portion, while the processing head is forced to move in the widthwise direction through contact of the tip with either of the side walls of the concave portion in response to change in course of the concave portion in the widthwise direction of the automobile body when the slidably supported structure is moved relatively to the automobile body by the longitudinal drive device.

Krueger does not disclose that the processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head.

However, processing heads connected in this manner are known. Rabourn discloses a processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head. In Rabourn, a buffing head (item 192) is attached in a pivotal manner via mutually perpendicular pins (see column 6). The buffing heads are "normally maintained against the top of the vehicle body by the force of their weight", i.e., gravity (see column 6, lines 48-50). Such action provides excellent coverage of the surface of the vehicle body, i.e., the contour or configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such connections in order to provide for excellent coverage.

As to claim 6, Krueger discloses a transverse direction driving device (item 175) which moves the processing device (item 16) in a width direction of the automobile body.

As to claim 8, the processing device is movably supported on the slidably supported structure in a vertical direction of the automobile body. Krueger discloses side support blocks 32 and 35 (item 74 with connecting structures) for enabling this movement.

As to claim 9, Krueger discloses a vertical driving device (item 32 and 35) for moving the processing device in a vertical direction with respect to the automobile body.

As to claim 12, Krueger discloses a transverse direction driving device and a vertical direction driving device. See sections cited in the rejection of claims 6 and 9 above.

As to claim 25, see the rejection of claim 1 above. Krueger discloses an apparatus for processing a workpiece, specifically a portion of an automobile body, which is capable of processing the portion including a concave portion which extends along a curved line in a substantially longitudinal direction of the workpiece and has opposing , comprising a processing device (item 10) and support device (item 181, see Figure 10 and 11) movably supporting the processing device, wherein the supporting device includes a slidably supported structure (for example, block 181 - and see especially column 10 which disclose that the supporting structures are slidably mounted) and is movable during the processing operation relative to and along the portion of the workpiece being processed. The slidably supported structure is in exclusively slidable engagement with the supporting device and is free to move in a widthwise direction of the automobile body relative to the automobile body, wherein such movement of the slidably supported structure is solely and directly in response to movement of the processing device along the concave portion. Krueger also discloses a longitudinal drive device (item 177) for moving the slidably supported structure relative to the workpiece in a longitudinal direction of the workpiece. Krueger further discloses that the processing device mounted to the slidably supported structure and includes a processing head having a tip (item 49, 50, visible in the figures) capable of engaging

either of the side walls and the bottom of the concave portion of the workpiece, the processing head thus being capable of moving in the substantially longitudinal direction relative to and along the concave portion, while the processing head is forced to move in the widthwise direction through contact of the tip with either of the side walls of the concave portion in response to change in course of the concave portion in the widthwise direction of the workpiece when the slidably supported structure is moved relatively to the workpiece by the longitudinal drive device. The support device includes a supporting block (see Figure 10, and Figure 1) and a slidably support structure.

Krueger does not disclose that the processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head.

However, processing heads connected in this manner are known. Rabourn discloses a processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head. In Rabourn, a buffing head (item 192) is attached in a pivotal manner via mutually perpendicular pins (see column 6). The buffing heads are "normally maintained against the top of the vehicle body by the force of their weight", i.e., gravity (see column 6, lines 48-50). Such action provides excellent coverage of the surface of the vehicle body, i.e., the contour or configuration. Therefore, it would have

been obvious to one of ordinary skill in the art at the time of the invention to have utilized such connections in order to provide for excellent coverage.

As to claim 44, Krueger discloses that the processing device comprises a nozzle capable of dispensing a strip of adhesive material (item 49), i.e., a sealant. In any event, Krueger is capable of performing the claimed function of dispensing the claimed material.

As to claim 47, Krueger discloses that the processing device comprises a nozzle capable of dispensing a strip of adhesive material (item 49), i.e., a sealant. In any event, Krueger is capable of performing the claimed function of dispensing the claimed material.

As to claims 48 and 49, Krueger discloses that the longitudinal drive device (item 177) is coupled to the slidably supported structure (for example, blocks 181), so that the slidably movable structure is moved in the longitudinal dimension of the automobile body/workpiece.

As to claim 50, Krueger discloses a transverse direction driving device (item 175) for moving the processing device in a width direction of the workpiece.

As to claim 52, Krueger discloses that the processing device is movably supported on the slidably supported structure in a vertical direction of the workpiece (see Figures 10 and 11).

As to claim 53, Krueger further discloses a vertical direction driving device (item 32 and 35) for moving the processing device in a vertical direction with respect to the workpiece.

As to claim 55, Krueger disdcloses a transverse direction driving device (item 175) for moving the processing device in a width direction of the workpiece and a vertical driving device (item 32 and 35) for moving the processing device in a vertical direction of the workpiece.

As to claims 57 and 58, Krueger discloses the transverse frame (see Figure 10), which enable fee and exclusive sliding as claimed.

As to claims 59-64, the apparatus of Krueger and Rabourn is capable of moving as claimed.

3. Claims 7, 10, 13, 51, 54, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krueger (US Patent 6,649,220) or Krueger (WO00/21684) and Rabpirm (US 4,876,760) as applied above in view of either of Clitheros (US Patent 4,564,410).

Krueger as applied above is silent as to the presence of any position detector.

As to claim 7, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction driving device (item 44) drives the supporting device based on detection signals

generated by the position detector via the numerical controller. As to claim 10, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction driving device (item 74) drives the supporting device based on detection signals generated by the position detector via the numerical controller. As to claim 13, Clitheros discloses a position detector for detecting the relative positions of the automobile and the supporting device, wherein the transverse direction driving device and the vertical direction driving device drive the processing device based on detection signals generated by the position detector. See sections cited in the rejections of claims 7 and 10 above.

Clitheros discloses that the sensors prevent extrusion or application of the adhesive material until the substrate is properly positioned (for example, column 8, lines 7-14) as well as selecting the proper program conditions for application (column 8, lines 32-39) based on the substrate configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such sensors in order to ensure proper positioning of the dispenser to the substrate, and to ensure proper dispensing on the substrate.

As to claim 51, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction

driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller. As to claim 54, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a vertical direction driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller. As to claim 56, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein the transverse direction driving device (item 84) and the vertical direction driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

Clitheros discloses that the sensors prevent extrusion or application of the adhesive material until the substrate is properly positioned (for example, column 8, lines 7-14) as well as selecting the proper program conditions for application (column 8, lines 32-39) based on the substrate configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such sensors in order to ensure proper positioning of the dispenser to the substrate, and to ensure proper dispensing on the substrate.

4. Claims 1, 6-10, 12-13, 25, 44, and 47-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clitheros (US Patent 4,564,410) in view of either of the Krueger references (US Patent 6,649,220 or WO00/21684) and Rabourn (US 4,876,760).

As to claim 1, Clitheros discloses an apparatus for processing a workpiece, specifically a portion of an automobile body, which is capable of processing the portion including a concave portion which extends along a curved line in a substantially longitudinal direction of the automobile body and has opposing , comprising a processing device (item 16) and s upport device (see Figure 2 and 3) movably supporting the processing device, wherein the supporting device includes a slidably supported structure (for example, blocks 28, 34 or 36 - and see especially column 5, line 3, which disclose that some supporting structures are slidably mounted) and is movable during the processing operation relative to and along the portion of the automobile body being processed. These blocks cooperate to enable full movement for block 28, to which the processing head is connected. The slidably supported structure is free to move in a widthwise direction of the automobile body relative to the automobile body due to the actions of motor 44 and connecting structures 38, 40 and 42. Clitheros also discloses a longitudinal drive device (item 74) for moving the slidably supported structure relative to the automobile body in a longitudinal direction of the automobile body. Clitheros further discloses that the processing device mounted to the slidably supported structure and includes a processing head having a tip (visible in the figures) capable of engaging either of the side walls and the bottom of the concave portion of

the automobile, the processing head thus being capable of moving in the substantially longitudinal direction relative to and along the concave portion, while the processing head is forced to move in the widthwise direction through contact of the tip with either of the side walls of the concave portion in response to change in course of the concave portion in the widthwise direction of the automobile body when the slidably supported structure is moved relatively to the automobile body by the longitudinal drive device.

Clitheros does not suggest that the slidably supported structure is in exclusively slidable engagement with the supporting device, and wherein such movement of the slidably supported structure is solely and directly in response to movement of the processing device along the concave portion. Clitheros does not disclose that the processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head.

However, Krueger discloses that a slidably supported structure (see Figures 10 and 11, item 181, and Figure 1, items 32 and 35) can be in exclusively slidable engagement with the supporting device, and wherein such movement of the slidably supported structure is solely and directly in response to movement of the processing device along the concave portion (in this case, an automobile window portion - and see column 10, lines 13-51. See also structures 32 and 35, which permit movement in other axis). One in the art would appreciate that such engagement structures would provide smooth positioning of the dispenser without the need for the screw arrangement of

Clitheros. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such structures in order to provide proper positioning of the dispenser and improve dispensing accuracy.

However, processing heads connected in this manner are known. Rabourn discloses a processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head. In Rabourn, a buffing head (item 192) is attached in a pivotal manner via mutually perpendicular pins (see column 6). The buffing heads are "normally maintained against the top of the vehicle body by the force of their weight", i.e., gravity (see column 6, lines 48-50). Such action provides excellent coverage of the surface of the vehicle body, i.e., the contour or configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such connections in order to provide for excellent coverage.

As to claim 6, Clitheros discloses a transverse direction driving device (item 44, driving motor) which moves the processing device (item 16) in a width direction of the automobile body.

As to claim 7, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction

driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claim 8, the processing device is movably supported on the slidably supported structure in a vertical direction of the automobile body. Clitheros discloses side support blocks 34 and 36 and a motor (item 74 with connecting structures) for enabling this movement.

As to claim 9, Clitheros discloses a vertical driving device (item 74) for moving the processing device in a vertical direction with respect to the automobile body.

As to claim 10, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction driving device (item 74) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claim 12, Clitheros discloses a transverse direction driving device and a vertical direction driving device. See sections cited in the rejection of claims 6 and 9 above.

As to claim 13, Clitheros discloses a position detector for detecting the relative positions of the automobile and the supporting device, wherein the tranverse direction driving device and the vertical direction driving device drive the processing device based on detection signals generated by the position detector. See sections cited in the rejections of claims 7 and 10 above.

As to claim 25, Clitheros discloses an apparatus for processing a workpiece, specifically a portion of an automobile body, which is capable of processing the portion including a concave portion which extends along a curved line in a substantially longitudinal direction of the workpiece and has opposing , comprising a processing device (item 16) and support device (see Figure 2 and 3) movably supporting the processing device, wherein the supporting device includes a slidably supported structure (for example, blocks 28, 34 or 36 - and see especially column 5, line 3, which disclose that some supporting structures are slidably mounted) and is movable during the processing operation relative to and along the portion of the workpiece being processed. The slidably supported structure is free to move in a widthwise direction of the workpiece relative to the workpiece due to the actions of motor 44 and connecting structures 38, 40 and 42. Clitheros also discloses a longitudinal drive device (item 74) for moving the slidably supported structure relative to the workpiece in a longitudinal direction of the workpiece. Clitheros further discloses that the processing device mounted to the slidably supported structure and includes a processing head having a tip (visible in the figures) capable of engaging either of the side walls and the bottom of the concave portion of the workpiece, the processing head thus being capable of moving in the substantially longitudinal direction relative to and along the concave portion, while the processing head is forced to move in the widthwise direction through contact of the tip with either of the side walls of the concave portion in response to change in course of

the concave portion in the widthwise direction of the workpiece when the slidably supported structure is moved relatively to the workpiece by the longitudinal drive device.

Clitheros does not suggest that the slidably supported structure is in exclusively slidable engagement with the supporting device, and wherein such movement of the slidably supported structure is solely and directly in response to movement of the processing device along the concave portion. Clitheros does not disclose that the processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head.

However, Krueger discloses that a slidably supported structure (see Figures 10 and 11, item 181) can be in exclusively slidable engagement with the supporting device, and wherein such movement of the slidably supported structure is solely and directly in response to movement of the processing device along the concave portion (in this case, an automobile window portion - and see column 10, lines 13-51. See also structures 32 and 35, which permit movement in other axis). One in the art would appreciate that such engagement structures would provide smooth positioning of the dispenser without the need for the screw arrangement of Clitheros. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such structures in order to provide proper positioning of the dispenser and improve dispensing accuracy.

However, processing heads connected in this manner are known. Rabourn discloses a processing device is vertically pivotally supported by the slidably supported structure so that the tip of the processing head contacts the bottom of the concave portion to follow the configuration of the bottom of the concave portion only by gravity force of the processing head. In Rabourn, a buffing head (item 192) is attached in a pivotal manner via mutually perpendicular pins (see column 6). The buffing heads are "normally maintained against the top of the vehicle body by the force of their weight", i.e., gravity (see column 6, lines 48-50). Such action provides excellent coverage of the surface of the vehicle body, i.e., the contour or configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such connections in order to provide for excellent coverage.

As to claim 44, Clitheros discloses that the processing device comprises a nozzle for dispensing a strip of adhesive material (see column 8), i.e., a sealant. In any event, Clitheros is capable of performing the claimed function of dispensing the claimed material.

As to claim 47, Clitheros discloses that the processing device comprises a nozzle (item 16) for dispensing a strip of adhesive material (see column 8), i.e., a sealant. In any event, Clitheros is capable of performing the claimed function of dispensing the claimed material.

As to claims 48 and 49, Clitheros discloses that the longitudinal drive device (item 74) is coupled to the slidably supported structure (for example, blocks 34 and

especially 28), so that the slidably movable structure is moved in the longitudinal dimension of the automobile body/workpiece.

As to claim 50, Clitheros discloses a transverse direction driving device (item 44) for moving the processing device in a width direction of the workpiece.

As to claim 51, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a transverse direction driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claim 52, Clitheros discloses that the processing device is movably supported on the slidably supported structure in a vertical direction of the workpiece (see Figures).

As to claim 53, Clitheros further discloses a vertical direction driving device (item 84) for moving the processing device in a vertical direction with respect to the workpiece.

As to claim 54, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein a vertical direction driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claim 55, Clitheros disdcloses a transverse direction driving device (item 44) for moving the processing device in a width direction of the workpiece and a vertical driving device (item 84) for moving the processing device in a vertical direction of the workpiece.

As to claim 56, Clitheros discloses a position detector (sensor means not shown, see column 6, line 65 to column 7, line 31 for Figure 2, and also column 8, lines 1-52 for the embodiment in Figure 3) for detecting the relative positions of the supporting device and the portion of the automobile body being processed, wherein the transverse direction driving device (item 84) and the vertical direction driving device (item 44) drives the supporting device based on detection signals generated by the position detector via the numerical controller.

As to claims 57 and 58, Krueger discloses the transverse frame (see Figure 10), which enable fee and exclusive sliding as claimed.

As to claims 59-64, the apparatus of Clitheros, Krueger and Rabourn is capable of moving as claimed.

Response to Arguments

5. Applicant's arguments filed 12/27/2006 have been fully considered but they are not persuasive.

6. The two Krueger references (US 6,649,220 and WO00/21684) both disclose the sliding structure for controlling or positioning a block (item 181) which controls the positioning of a dispenser (item 10) which is used for coating an automobile body

component. Examiner takes the position, with respect to the 102 and 103 rejections and arguments against them, that Krueger discloses the slidably support structure" that can move as claimed. Additionally, Rabourn discloses a gravity sliding or pivoting approach.

Allowable Subject Matter

7. Claim 41 is allowed.

8. The following is an examiner's statement of reasons for allowance (As previously cited in the office action mailed 1/28/2004): As to claim 41, Svennson discloses the supporting structure with one arm for supporting the processing device and the first and second processing devices as claimed. Svensson also discloses vertical driving cylinders for each nozzle or processing device (see column 2, lines 65-67). Svensson discloses that the processing devices are spray nozzles. The spray nozzles are "air spray" nozzles, and are capable of functioning as air guns.

However, Svensson does not discloses the first and second transverse driving cylinders, Svennson merely discloses one transverse driving cylinder (item 27) which cooperates with the frame which supports the processing device.

Furthermore, Okuda (US Patent 5,085,374) discloses two arms (item 33, see especially Figure 3). The support structures for each nozzle as shown in Figure 3 are analogous to the first and second follower frames. However, neither Svennson or Okuda does not disclose that each arm has a transverse driving cylinder and a vertical driving cylinder. Furthermore, neither Svennson or Okuda disclose that the first and

second follower frames respectively comprise first, second and third transversely disposed frames, wherein the second transversely disposed frame of the first follower frame is coupled to an end portion of the first arm, and the second transversely disposed frame of the second follower frame is coupled to an end portion of the second arm. Similarly, Krueger does not disclose the arms, being directed towards a similar device as Svensson and Okuda.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-866-377-8642 and giving the operator the above TDD number. The examiner can also be reached by E-mail at george.koch@uspto.gov <mailto:george.koch@uspto.gov> in accordance with MPEP 502.03. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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